



Electromagnetic Measures

<u>Wavelength</u> (m)	<u>Prefix</u> (Hz)	<u>Cardinal</u> (Hz)	<u>Comparisons</u> 1 Wavelength equals:	<u>Vibrations / sec</u> (Hz)
10 ³² m	Yocto-	30 ⁻²⁴		0.000 000 000 000 000 000 000 003
10 ³⁰ m				0.000 000 000 000 000 000 000 03
	Zepto-	30 ⁻²¹		0.000 000 000 000 000 000 000 03
10 ²⁷ m				0.000 000 000 000 000 000 03
100 Ym	Atto-	30 ⁻¹⁸	Size of observable Universe	0.000 000 000 000 000 03
10 Ym			1 gigaparsec	0.000 000 000 000 000 03
1 Yotta- (10 ²⁴ m)				0.000 000 000 000 000 3
100 Zm	Femto-	30 ⁻¹⁵		0.000 000 000 000 003
10 Zm			Distance to Andromeda	0.000 000 000 000 03
1 Zetta- (10 ²¹ m)				0.000 000 000 000 3
100 Em	Pico-	30 ⁻¹²		0.000 000 000 003
10 Em			200 Light-years	0.000 000 000 03
1 Exa- (10 ¹⁹ m)				0.000 000 000 3
100 Pm	Nano-	30 ⁻⁹		0.000 000 003
10 Pm			1 Light-year	0.000 000 03
1 Peta- (10 ¹⁵ m)				0.000 000 3
100 Tm	Micro-	30 ⁻⁶	Orbit of Pluto	0.000 003
10 Tm				0.000 03
1 Tera-			1 Light-hour	0.000 3
100 Gm	Milli-	30 ⁻³		0.003
10 Gm	Centi-	30 ⁻²		0.03
1 Giga-	Deci-	30 ⁻¹		0.3
100 000 km	HERTZ	30 ⁰	Size of Saturn	3
10 000 km				30
1 000 km	Hekto-	30 ²	Van Allen Belt	300
100 km	Kilo-	30 ³	Atmosphere	3 000
10 km				30 000
1 km			Mountains	300 000
100 meter	Mega-	30 ⁶		3 000 000
10 m			House	30 000 000
1 m				300 000 000
10 centi-	Giga-	30 ⁹	Width of hand	3 000 000 000
1 cm			Fingernail	30 000 000 000
1 mm				300 000 000 000
100 micro-	Tera-	30 ¹²		3 000 000 000 000
10 µm			Pollen	30 000 000 000 000
1 µm			Cells	300 000 000 000 000
100 nano-	Peta-	30 ¹⁵		3 000 000 000 000 000
10 nm			Molecules	30 000 000 000 000 000
1 nm				300 000 000 000 000 000
100 pico-	Exa-	30 ¹⁸	Atoms	3 000 000 000 000 000 000
10 pm				30 000 000 000 000 000 000
1 pm			Atomic Nuclei	300 000 000 000 000 000 000
100 femto-	Zetta-	30 ²¹		3 000 000 000 000 000 000 000
10 fm			Proton	30 000 000 000 000 000 000 000
1 fm				300 000 000 000 000 000 000 000
100 atto-	Yotta-	30 ²⁴		3 000 000 000 000 000 000 000 000

Abbreviations:

AM	Amplitude Modulation
FM	Frequency Modulation
IR	Infrared
SLF	Super Low Frequency
ULF	Ultra Low Frequency
VLF	Very Low Frequency
LF	Low Frequency
MF	Medium Frequency
HF	High Frequency
VHF	Very High Frequency
UHF	Ultra High Frequency
SHF	Super High Frequency
EHF	Extremely High Frequency
THF	Tera Hertz Frequency / Tremendously High Frequency
FIR	Far Infrared
NIR	Near Infrared
EUV	Extreme Ultraviolet
SX	Soft X-Ray
HX	Hard X-Ray
γ	"Gamma" - The third letter of the Greek alphabet.